

# Delphi-X Observer

## fluorescence

### HIGHLIGHTS

- Trinocular model
- Ergonomic tilting head
- Standard super wide field SWF 10x/22 mm, Ø 30 mm tubes
- Sextuple reversed nosepiece
- Enhanced infinity corrected EIS optical system
- 60 mm parafoveal Plan EIS objectives
- 60 mm parafoveal Plan Semi-Apochromatic EIS objectives
- M25 mm objective thread mounting
- 100 W HBO or LED fluorescence illumination
- 3 W NeoLED™ or 100 W halogen diascope illumination



EDX-3153-APLi ●

EDX-3153-PLi  
EDX-3153-PLi/HAL

454 (h) x 260 (w) x 367 mm (d) | 26 kg  
454 (h) x 260 (w) x 480 mm (d) | 26.5 kg

### SPECIFICATIONS

#### EYEPIECES

- Standard super wide field SWF 10x/22 mm, Ø 30 mm tubes

#### STANDARD HEAD

Siedentopf trinocular head with 30° inclined tubes. Interpupillary distance adjustable between 47 and 78 mm. Three position beamsplitter (0:100/ 80:20 / 100:0). Diopter ± 5 adjustments on both eyepieces

#### ERGONOMIC TILTING HEAD

Optional ergonomic 0 to 35° tilting trinocular head supplied with SWF 10x/22 mm eyepieces, interpupillary distance 47-78 mm and photo tube with standard Ø 23.2 mm tube. **Also available:** a Siedentopf ergonomic tilting binocular head for Delphi-X Observer. Only with purchase of a new microscope

#### NOSEPIECE

Revolving sextuple reversed nosepiece on ball-bearings

#### ENHANCED INFINITY SYSTEM (EIS)

The enhanced infinity system (EIS) of the Delphi-X Observer™ consists of Super wide field SFWF 10x/25 mm eyepieces, high numerical aperture 60 mm

parafoveal objectives and a 200 mm focal length tube lens. The 200 mm focal length tube lens reduces the angle of the light rays passing through the optics and as a direct result improving significantly the chromatic aberration corrections and contrast of the images produced. The objectives have a larger diameter enabling a much higher numerical aperture, thus improving the overall resolving power of the optical system

For all these reasons the Delphi-X Observer™ offers superior optical performance for the most demanding applications



● Tilting head ●

## OBJECTIVES

Plan PLi	2x/0.06 <sup>(1)</sup>	4x/0.10	10x/0.25	20x/0.40	S40x/0.65	S60x/0.80 <sup>(1)</sup>	S100x/1.25 oil	S100x/1.25 oil iris <sup>(1)</sup>
Plan Semi-Apo Fluarex		4x/0.13	10x/0.30	20x/0.50	S40x/0.75		S100x/1.30 oil	

All objectives are 60 mm parafocal and have a M25 mm mounting thread. All optics are anti-fungus treated and anti-reflection coated for maximum light throughput. All S40x, S60x and S100x objectives are spring loaded

<sup>(1)</sup> Optional

## PLAN ACHROMATIC EIS OBJECTIVES

(clinical routine applications)

The Delphi-X Observer™ is standard supplied with Plan Achromatic 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65 and S100x/1.25 (oil immersion) infinity corrected EIS objectives

Available as an option:  
2x/0.06 and S60x/0.80

## PLAN SEMI-APPOCHROMATIC FLUAREX OBJECTIVES

(anatomy- and histopathology applications)

The Delphi-X Observer™ can also be supplied with Plan Semi-Apochromatic 4x/0.13, 10x/0.30, 20x/0.50, S40x/0.75 and S100x/1.30 (oil immersion) infinity corrected EIS objectives

## STAGE

190 x 152 mm stage with 80 x 54 mm integrated right-handed mechanical stage. Designed for 2 slides. Standard supplied with scratch-resistant Gorilla glass. Sapphire scratch-resistant glass is available on request. Left-handed mechanical stage is available on request

## FOCUSING

Coaxial coarse and fine adjustment, 100 graduations, 1 µm precision, 100 µm per rotation, total travel range is approximately 35 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control. The focusing knobs can be switched from left to right according to the user's preference

## CONDENSER FOR BRIGHTFIELD

In height adjustable N.A. 0.90/1.25 Abbe swing-out condenser with numerical aperture identification marks

## ILLUMINATION FOR FLUORESCENCE

The Delphi-X Observer can be configured with a rotating carousel which can contain up to six filter cubes and supplied with a 100 W HBO mercury vapor light source for a broad powerful light spectrum

Supplied with standard fluorescence filters sets for Blue excitation (EX460-490 DM500 EM520LP) and Green excitation (EX510-550 DM570 EM575LP), UV shield and external power supply

Other more specific and optimized application-related fluorescence filter sets are also available

## LED ILLUMINATION FOR FLUORESCENCE

The Delphi-X Observer can also be configured with two different LED systems for fluorescence:

- ELE-6400 LED source with 365, 470, 525 and 630 nm LED's with the standard 6-positions attachment and the 2 standard filter sets AE.9746 (Green) and AE.9745 (Blue excitation)
- Integrated 4-positions LED attachment (EDX-9200-LED) Supplied with three 365, 485 and 525 nm LED's and three 3 standard filter sets AE.9748 (UV), AE.9746 (Green) and AE.9745 (Blue excitation)

## DELPHI-X OBSERVER COMBINED WITH

### ELE-6400, 4-LED fluorescence light source

- As standard 6-Positions attachment
- With 365, 470, 525 and 630 nm LED's
- Supplied with two standard filter sets AE.9746 (Green) and AE.9745 (Blue excitation)
- Optional AE.9748 (UV) and AE.9747 (Violet) standard filter sets

To order, add ELE-6400-ADD

to the EDX-3153 newly purchased microscope

UV and Violet excitation requires Fluarex objectives

(EDX-3153-APLi or EDX-3153-APLi/HAL models)



● LED fluorescence ELE-6400

**EDX-9200-LED, 3-LED fluorescence light source**

- Integrated 4-positions LED attachment
- Supplied with three 365, 485 and 525 nm LED's and three standard filter sets AE.9748 (UV), AE.9746 (Green) and AE.9745 (Blue excitation)

UV and Violet excitation requires Fluarex objectives (EDX-3153-APLi or EDX-3153-APLi /HAL models)



**NEOLED™**



The innovative NeoLED™ design is a combination of a custom LED and a specially designed thin lens with a short focal length in order to obtain three main benefits:

- More oblique light from the LED light source can be captured, which increases the light output significantly
- Less energy is required to achieve this level of light intensity
- The larger aperture of NeoLED™ allows the optical system to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics

**ICARE SENSOR**

The unique iCare Sensor is developed to avoid unnecessary loss of energy. The illumination of the microscope automatically switches off shortly after microscopists step away from their position

● iCare sensor



**DIASCOPIIC ILLUMINATIONS**

Two Köhler illuminations are available for the Delphi-X Observer™ microscope:

- Diascopic intensity adjustable 3 W NeoLED™ Köhler illumination with internal 100-240 V power supply
- Diascopic intensity adjustable 100 W halogen Köhler illumination with internal 100-240 V power supply

The diascopic halogen illumination comes with two push-in/push-out neutral density filters for smooth attenuation of the light intensity for all kind of samples and with one Light Balancing Daylight filter (LBD). The diascopic NeoLED™ illumination comes with a frosted diffuse filter

**CARRYING GRIP**

The carrying grip at the back of the microscope ensures safe transportation of the microscope and the integrated tool & holder makes sure the right tool is always available

**PACKAGE CONTENT**

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil

MODELS	Standard trinocular	Ergonomic tilting head	SWF 10x/22 mm eyepieces	Plan 4/10/20/540/5100x oil EIS objectives	Plan Semi-Apo Fluarex 4/10/20/540/ 5100x oil EIS objectives	3 W NeoLED™ Köhler illumination	100 W Halogen Köhler illumination
EDX-3153-PLi	•		•	•		•	
EDX-3158-PLi		•	•	•		•	
EDX-3153-APLi	•		•		•	•	
EDX-3158-APLi		•	•		•	•	
EDX-3153-PLi/HAL	•		•	•			•
EDX-3158-PLi/HAL		•	•	•			•
EDX-3153-APLi/HAL	•		•		•		•
EDX-3158-APLi/HAL		•	•		•		•

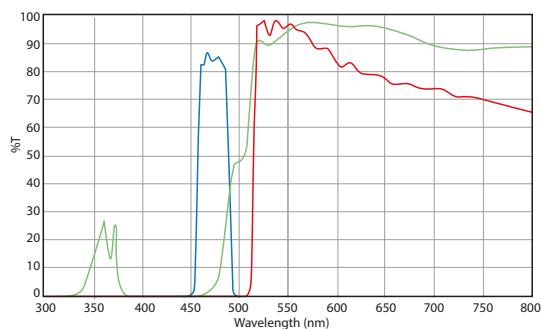
Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746  
Contact your Euromex dealer

## STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS

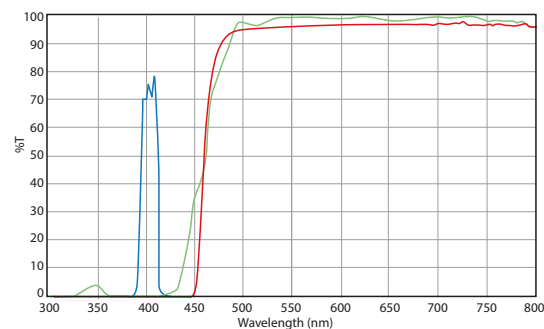
Supplied with standard fluorescence filter sets for blue excitation (EX460-495 DM505 EM510LP) and green excitation (EX510-550 DM570 EM575LP), UV shield and external power supply. Optional: fluorescence filter sets for UV excitation (EX330-385 DM400 EM420LP) and violet excitation (EX400-410

DM455 EM460LP). On special request, the microscope can also be supplied with optimized and zero-pixel shift optimized filter sets on request. See end of this chapter

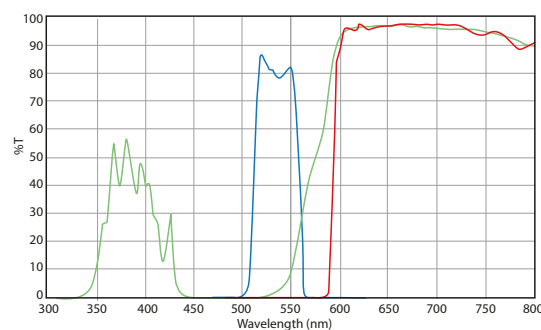
**Filter set for blue excitation (EDX-9745)**



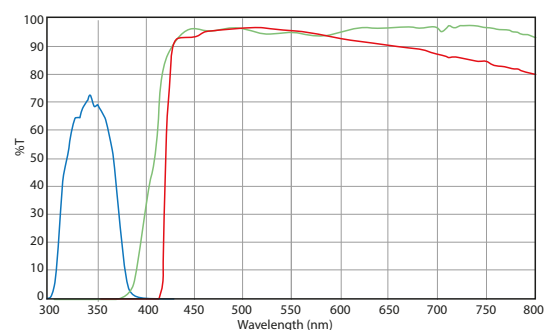
**Filter set for violet excitation (EDX-9747)**



**Filter set for green excitation (EDX-9746)**



**Filter set for ultra-violet excitation (EDX-9748)**



## ACCESSORIES AND SPARE PARTS

### EYEPIECES

- EDX-6210** Super wide field SWF 10x/22 mm eyepiece for Ø 30 mm tube
- EDX-6210-CM** Super wide field SWF 10x/22 mm eyepiece with micrometer and cross hairs for Ø 30 mm tube
- EDX-6012** Wide field WF 12.5x/17.5 mm eyepiece for Ø 30 mm tube
- EDX-6015** Wide field WF 15x/16 mm eyepiece for Ø 30 mm tube
- EDX-6020** Wide field WF 20x/12 mm eyepiece for Ø 30 mm tube
- EDX-6099-L** Eyecup for eyepieces

### OBJECTIVES

**Plan infinity corrected PLi, EIS 60 mm parfocal\***

- EDX-7202** 2x/0.06 PLi objective. WD 7.5 mm
- EDX-7204** 4x/0.10 PLi objective. WD 30 mm
- EDX-7210** 10x/0.25 PLi objective. WD 10.2 mm
- EDX-7220** 20x/0.40 PLi objective. WD 12 mm
- EDX-7240** S40x/0.65 PLi objective. WD 0.7 mm
- EDX-7260** S60x/0.80 PLi objectives. WD 0.3 mm
- EDX-7200** S100x/1.25 PLi oil immersion objective. WD 0.2 mm
- EDX-7200-I** S100x/1.25 PLi oil immersion objective with built-in iris diaphragm. WD 0.2 mm

**Plan Semi Apochromatic Fluarex, infinity corrected PL-SAFi, EIS 60 mm parfocal\***

- EDX-7304** 4x/0.13 PL-SAFi objective. WD 16.5 mm
- EDX-7310** 10x/0.30 PL-SAFi objective. WD 8.1 mm
- EDX-7320** 20x/0.50 PL-SAFi objective. WD 2.1 mm
- EDX-7340** S40x/0.75 PL-SAFi objective. WD 0.7 mm
- EDX-7300** S100x/1.30 PL-SAFi oil immersion objective. WD 0.15 mm

\*M25 mounting thread

WD = Working distance

### CONDENSERS

- EDX-9105** Abbe condenser with 0.9/1.25 swing-out front lens
- EDX-9110** Dry darkfield condenser
- EDX-9112** Oil immersion darkfield condenser

### POLARIZATION ATTACHMENTS

- EDX-9660** Simple polarization kit
- EDX-9662** Special polarization kit for gout
- EDX-9704** Yellow filter for lamphouse, diameter 45 mm

**CAMERA ACCESSORIES**

- EDX-9810** C-mount with 1 magnification for C-mount camera
- EDX-9835** C-mount with high resolution relay 0.35x objective for 1/3 inch C-mount camera
- EDX-9850** C-mount with high resolution relay 0.50x objective for 1/2 inch C-mount camera
- EDX-9863** C-mount with high resolution relay 0.63x objective for 2/3 inch C-mount camera
- EAE-5130** Universal SLR adapter with built-in 2x lens for standard 23.2 mm tube. Needs T2 adapter
- EAE-5025** T2 ring for Nikon D SLR digital camera
- EAE-5040** T2 ring for Canon EOS SLR digital camera

**MISCELLANEOUS**

- EDX-9200-LED** LED fluorescence attachment with Blue 460-495 nm excitation LED and EX 460-495 DM 505 EM 510 LP filter set, Green 510-550 nm LED excitation and EX 510-550 DM 570 EM 575 LP filter set
- EDX-5701-ADD** Siedentopf ergonomic tilting binocular head option for Delphi-X Observer. Only with purchase of a new microscope. Add the EDX-5701-ADD price to a Delphi-X Observer model (EDX-1153-xxxx / EDX-2153-xxxx / EDX-3153-xxxx) to have the price of a configuration with ergonomic binocular tilting head and order the microscope as EDX-x153-xxxx + EDX-5701-ADD
- EDX-9501-R** Stage with Gorilla glass. Right handed
- EDX-9501-L** Stage with Gorilla glass. Left handed
- EDX-9504-R** Stage with Sapphire glass. Right handed
- EDX-9504-L** Stage with Sapphire glass. Left handed
- EDX-9501-LG** Option for left handed stage with Gorilla glass<sup>(1)</sup>
- EDX-9504-RS** Option for right handed stage with Sapphire glass<sup>(1)</sup>
- EDX-9504-LS** Option for left handed stage with Sapphire glass<sup>(1)</sup>

<sup>(1)</sup> Only with new Delphi-X Observer microscopes  
(resp. EDX-xx5x-xxx/RS and EDX-xx5x-xxx/LS)

- EDX-9960** 100 W 24 V halogen bulb (revision 1 models)
- EDX-9961** 100 W 12 V halogen bulb (revision 2 models)
- EDX-9993** 3 Watt LED replacement
- EAE-5214** 500 mA 250 V fuses for LED models, 10pcs
- EAE-5216** 5 A 250 V fuses for Halogen models, 10pcs

**DISPOSABLES**

- EPB-5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack
- EPB-5165** Cover glasses 18 x 18 mm, 0.13-0.17 mm, 100 pieces
- EPB-5168** Cover glasses 22 x 22 mm, 0.13-0.17 mm, 100 pieces
- EPB-5245** Lens cleaning paper, 100 sheets per pack
- EPB-5255** Immersion oil, 25 ml. Refraction index n = 1.515
- EPB-5274** Iso propyl alcohol 99%, 200 ml
- EPB-5275** Cleaning kit: lens fluid, lint free lens tissue/paper, brush, air blower, cotton swabs



● EDX-5701-ADD



● EDX-9200-LED



● EDX-9501-L Stage with Gorilla glass. Left handed